Department of Toxic Substances Control

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Public Seminar on Universal Waste and Proposed Regulations for the Management of Waste Photovoltaic Modules as Universal Waste

To All Interested Community Members and Stakeholders:

The Department of Toxic Substances Control (DTSC) will hold a public informational seminar on March 25, 2019, to present information on California's Universal Waste Program and the proposed regulations to include waste photovoltaic modules (PV modules), commonly known as solar panels, on the list of hazardous wastes eligible to be managed as universal waste. DTSC is proposing these new regulations to promote a streamlined approach to the end of life management of solar panels and add safeguards that will provide enhanced protection for human health, safety, and the environment.

This informational session offers the opportunity for public discussion and is intended to familiarize people with California's Universal Waste Program and the proposal for PV modules. DTSC intends to public notice the rulemaking package on April 19, 2019, which will begin the formal rulemaking process.

The meeting agenda and proposed regulatory text will be available on the PV module – universal waste project web page at: https://www.dtsc.ca.gov/HazardousWaste/PVRegs.cfm. Stakeholders can attend the seminar in-person or participate remotely via live Webcast. The informational seminar will be recorded and posted on the PV module web page (link above) for viewing. The informational seminar will be held at the following time and location:

Date:	March 25, 2019
Time:	9:00 am –11:00 am (PDT)
Location:	CalEPA Building 1001 "I" Street, Coastal Hearing Room Sacramento, California 95812
Webcast:	https://video.calepa.ca.gov/

Background: PV modules consist of an array of semiconducting photovoltaic cells (PV cells) that convert solar energy into electrical energy. PV cells are made of mostly silicon materials and connected via electrical contacts. The electrical contacts are made of metals such as palladium, silver, nickel, copper, or cadmium. Some PV modules exhibit the hazardous waste characteristic of toxicity due to the presence of these metals. Many households and businesses are unaware of the potential hazards associated with PV modules, resulting in these wastes being illegally and improperly handled and disposed of as municipal solid waste.

PV modules have an expected service life of 30 years and are designed to maintain their performance and functionality under varying environmental conditions. However, PV modules could become a waste at various stages, including manufacturing, installation, or replacement. In the absence of government intervention, businesses that generate waste PV modules would likely send them for disposal at municipal solid waste landfills. Municipal solid waste landfills provide less protection to human health and the environment against the hazards that PV modules contain than a permitted hazardous waste disposal facility.

Recently enacted California laws and initiatives have prompted an increase in demand for solar energy by various public and private sectors, which have resulted in an increased number of installations and operations of PV modules. For example, California law established a basic policy framework for the increased use of renewable energy resources in California, known as the Renewables Portfolio Standard. The goal of the program intends that 60 percent of California's energy sources in 2030 be derived from renewable energy resources. Solar power is one of the means of achieving California's increasing alternative energy production and with the increase in PV modules being installed, the proposed regulation will ensure PV modules have a pathway for streamlined management once they reach the end of their useful life.

Public Participation: To ensure the public has equal access to all available services and information, DTSC will provide disability related reasonable accommodations and/or translator/interpreter needs, as appropriate, in accordance with state and federal law. Please contact the staff person below as soon as possible, but no later than 10 business days prior to the scheduled event/meeting for assistance:

Dr. Chosu Khin
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P.O. Box 806
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(916) 324-2428
PVModules@dtsc.ca.gov

TTY/TDD Speech-to-Speech users may dial 711 for the California Relay Service

Contact Information: If you have any further questions about universal waste or PV modules, email PVModules@dtsc.ca.gov or contact Dr. Chosu Khin at (916) 324-2428.